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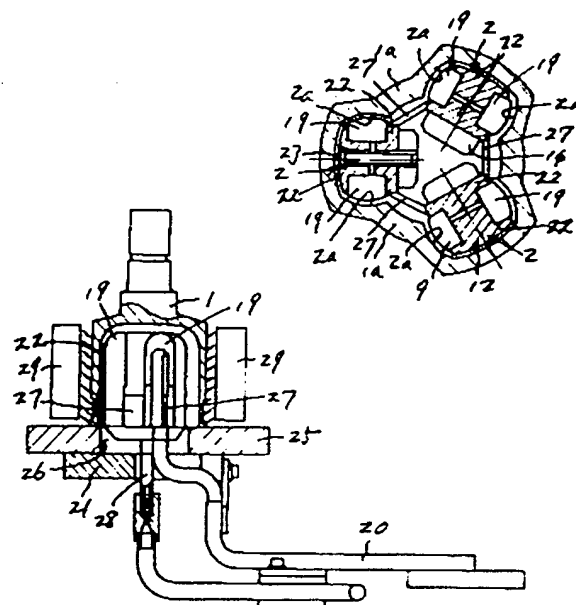
APPLICATION DATE : 20-06-83
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APPLICANT : NTN TOYO BEARING CO LTD;

INVENTOR : YASUE YUKIHIKO;

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TITLE : HIGH-FREQUENCY HARDENING
METHOD OF OUTSIDE CYLINDER OF
CONSTANT-VELOCITY UNIVERSAL
JOINT



ABSTRACT : PURPOSE: To prevent the quenching crack in the chamfer part at the open end of an outside cylinder by providing gates around induction coils facing the open end of the outside cylinder, storing cooling water by the gates and retarding the temp. decrease at the open end of the outside cylinder.

CONSTITUTION: An outside cylinder 1 having the petal-shaped section of a constant-velocity universal joint is placed with the open end directed downward on a concentric ring 25 on which an insulating film is coated. Triplet induction coils 19 meeting respectively guide grooves 2 of the cylinder are inserted into the respective guide grooves and the surface of the trucks 2a of the grooves 2 is subjected to one-shot type high frequency hardening. Insulator gate plates 27 are provided between the lower parts of the coils 19 and gates are formed around the lower parts of the coils 19. Cooling water is stored by the gates to retard the temp. decrease at the open end of the outside cylinder.

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